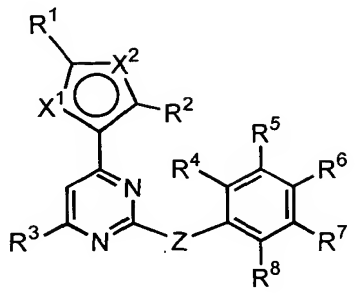
CLAIMS

1. A compound of general formula I:



I

wherein:

one of X^1 and X^2 is NR^{10} and the other of X^1 and X^2 is CR^9;

Z is NH, NHCO, $NHSO_2$, $NHCH_2$, CH_2, CH_2CH_2, or CH=CH;

R^1, R^2, R^3 R^9 and R^{10} are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2, CN, OH, alkoxy, aryloxy, (R''')nNH$_2$, (R''')nNH-R', (R''')nN-(R')(R''), NH-aryl, N-(aryl)$_2$, COOH, COO-R', COO-aryl, $CONH_2$, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)$_2$, SO_3H, SO_2NH_2, CF_3, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO_2, CN, OH, O-methyl, NH_2, COOH, $CONH_2$ and CF_3;

R^4, R^5, R^6, R^7, and R^8 are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO_2, CN, OH, substituted or unsubstituted alkoxy, NH_2, NH-R', N-(R')(R''), COOH, COO-R', $CONH_2$, CONH-R', CON-(R')(R''), SO_3H, SO_2NH_2, or CF_3;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R^1 and R^2 are H, X^1 is NH, X^2 is CH, and R^3 is H, the phenyl group is not

unsubstituted,

4-ethyl,

3-methyl,

3-(1,1,2,2- tetrafluoroethoxy),

3,4,5-trimethoxy,

when the other groups R^4-R^8 are H;

and pharmaceutically acceptable salts thereof.

2. A compound according to claim 1, wherein;

- X^1 and X^2 are CR^9 and NH respectively;

- R^1, R^2, R^3 and R^9 are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2, CN, OH, alkoxy, aryloxy, (R''')nNH_2, (R''')nNH-R', (R''')nN-(R')(R''), COOH, COO-R', $CONH_2$, CONH-R', CON-(R')(R''), SO_3H, SO_2NH_2, CF_3, and CO-R' wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO_2, CN, OH, O-methyl, NH_2, COOH, $CONH_2$ and CF_3;

- Z is selected from NH, $NHSO_2$ and $NHCH_2$;

- R^4-R^8 are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C_{1-4} alkyl and substituted C_{1-4} alkyl.

3. A compound according to claim 1, wherein Z is NH and R^3 is H.

4. A compound according to claim 3, wherein R^1, R^2 and R^9 are each independently H, halogeno, CN, NO2, CO(NH2), (R''')NH(R')(R'') a C_{1-4} alkyl group or a heterocyclic group.

5. A compound according to claim 4, wherein when R^1 is halogeno, it is selected from chloro or bromo; when R^1 is alkylamino, it is diethylaminomethyl or dimethylaminomethyl; when R^1 is a heterocyclic group it is morpholin-4-ylmethyl or 4-methyl-piperazin-1-ylmethyl.

6. A compound according to claim 1, wherein R^1 is H or CN, and R^2 and R^9 are both methyl.

7. A compound according to claim 6, wherein R^1 is H.

8. A compound according to claim 7, wherein R^1 is CN.

9. A compound according to claim 1, wherein;
R^4, R^5, R^6, R^7, and R^8 are independently from each other H, unsubstituted lower alkyl, halogeno, NO_2, CN, OH, N-(R')(R''), or CF_3;
wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

10. A compound according to claim 9, wherein R^4 to R^8 are selected independently from H, F, NH_2, NO_2, OH, Cl, Br, I, CN, CH_2OH, CF_3 and dimethylamino.

11. A compound according to claim 9 or 10, wherein R^4 and R^8 are both hydrogen.

12. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethylpyrrol-3-yl)pyrimidineamines in which the phenyl group is 2-, 3-, 4-or 5-substituted by at least one of F, NH_2, NO_2, OH, Cl, Br, I, CN, CH_2OH, CF_3 or OMe.

13. A compound according to claim 12, wherein the phenyl group is mono-substituted by F, NH_2, NO_2, OH, Cl, Br, I, CH_2OH, CN, CF_3 or OMe at any of the 2,3, 4 or 5-positions, or di-substituted by 2,4-difluoro, 3,5-difluoro, 3,4-difluoro, 2,4-dichloro, 3,5-dichloro, 3,4-dichloro or 4-chloro-3-trifluoromethyl.

14. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(3,5-dimethyl-1H-pyrrole-2-carbonitrile)pyrimidineamines in which the phenyl group is 2-, 3- or 4-substituted by at least one of F, $NH(CH_3)_2$, NO_2, OH, Cl, Br, I or CF_3.

15. A compound according to claim 14, wherein the phenyl group is mono-substituted by F, $NH(CH_3)_2$, NO_2, OH, I or CF_3 at any of the 3 or 4-positions, or di-substituted by 4-methyl-3-nitro, 3-iodo-4-methyl, 4-chloro-3-methyl, 3-hydroxy-4-methyl, 4-fluoro-3-methyl or 4-methyl-3-fluoro.

16. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, $NH(CH_3)_2$, NO_2, OH, I or CF_3 at the 4-position.

17. A compound according to claim 16, wherein the phenyl group is substituted by a fluoro or $NH(CH_3)_2$ group.

18. A compound according to claim 1, wherein said compound is selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-halogeno-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, $NH(CH_3)_2$, NO_2, OH, I or CF_3 at the 3 or 4-positions.

19. A compound according to claim 18, wherein the phenyl group is substituted by a 4-fluoro or 3-nitro group, the halogeno group being chloro or bromo.

20. A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-dialkylaminoalkyl-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is mono-substituted by F, $NH(CH_3)_2$, NO_2, OH, I or CF_3 at the 4-position.

21. A compound according to claim 20, wherein the phenyl group is substituted by fluoro, the dialkylaminoalkyl group preferably being diethylaminomethyl or dimethylaminomethyl.

22. A compound according to claim 1, selected from 2-[N-(phenyl)]-4-(2,4-dimethyl-5-(heterocycle)-1H-pyrrol-3-yl)-pyrimidinamines wherein the phenyl group is preferably mono-substituted by F, $NH(CH_3)_2$, NO_2, OH, I or CF_3 at the 4-position.

23. A compound according to claim 22, wherein the phenyl group is substituted by fluoro, the heterocycle group being 5-morpholin-4-ylmethyl or 4-methyl-piperazin-1-ylmethyl.

24. A compound according to claim 1 selected from:
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
(3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

(4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;
(2,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
(2,4-Dichloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine ;
(4-Chloro-3-trifluoromethyl-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-trifluoromethyl-phenyl)-amine;
(3-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
N-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;
(3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;

[4-(3,5-Dimethyl-1H-pyrrol-2-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

(4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;

[4-(5-Amino-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine; and

{4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.

25. A compound according to claim 24 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;

(3,4-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

(4-Chloro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

(3,5-Difluoro-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

4-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;

3-[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-ylamino]-phenol;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;

(3-Chloro-4-iodo-phenyl)-[4-(2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-fluoro-4-iodo-phenyl)-amine;

3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;

(4-Fluoro-phenyl)-[4-(1,2,4-trimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-amine;

[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and

{4-[2,4-Dimethyl-5-(4-methyl-piperazin-1-ylmethyl)-1H-pyrrol-3-yl]-pyrimidin-2-yl}-(4-fluoro-phenyl)-amine.

26. A compound according to claim 25 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;
[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-trifluoromethyl-phenyl)-amine;
3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;
4-[2-(3-Iodo-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Chloro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(3-Fluoro-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Dimethylamino-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;
4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;
[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

N-[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-N',N'-dimethyl-benzene-1,4-diamine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(5-Chloro-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Diethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine, and

[4-(2,4-Dimethyl-5-morpholin-4-ylmethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

27. A compound according to claim 26 selected from;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine;

[4-(2,4-Dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-iodo-phenyl)-amine;

3,5-Dimethyl-4-[2-(3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-trifluoromethyl-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(4-Iodo-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

3,5-Dimethyl-4-[2-(4-methyl-3-nitro-phenylamino)-pyrimidin-4-yl]-1H-pyrrole-2-carbonitrile;

4-[2-(3-Hydroxy-4-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-3-methyl-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carbonitrile;

4-[2-(4-Fluoro-phenylamino)-pyrimidin-4-yl]-3,5-dimethyl-1H-pyrrole-2-carboxylic acid amide;

[4-(2,4-Dimethyl-5-nitro-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine;

[4-(5-Bromo-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(3-nitro-phenyl)-amine, and

[4-(5-Dimethylaminomethyl-2,4-dimethyl-1H-pyrrol-3-yl)-pyrimidin-2-yl]-(4-fluoro-phenyl)-amine.

28. A compound according to claim 1, wherein;

- X^1 and X^2 are NH and CR^9 respectively;

- R^1, R^2, R^3 and R^9 are each independently selected from H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2, CN, OH, alkoxy, aryloxy, (R''')nNH$_2$, (R''')nNH-R', (R''')nN-(R')(R''), COOH, COO-R', CONH$_2$, CONH-R', CON-(R')(R''), SO_3H, SO_2NH_2, CF_3, and CO-R' wherein alkyl, aryl and aralkyl groups may be further substituted with one or more groups selected from halogeno, NO_2, CN, OH, O-methyl, NH_2, COOH, CONH$_2$ and CF_3;

- Z is selected from NH, $NHSO_2$ and $NHCH_2$;

- R^4, R^5 and R^8 are each independently selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), C_{1-4} alkyl and substituted C_{1-4} alkyl;
- R6 is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, alkoxy, carbamoyl, sulfamyl, N(R')(R''), methyl, propyl, butyl and substituted C_{1-4} alkyl;
- R7 is selected from H, halogeno, nitro, amino, aminoalkyl, hydroxy, carbamoyl, sulfamyl, N(R')(R'' C_{2-4} alkyl and substituted C_{1-4} alkyl.

29. A pharmaceutical composition comprising a compound of claim 1 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable excipient.

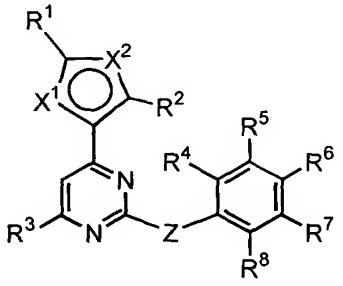
30. Use of a compound of claim 1 or a pharmaceutically acceptable salt thereof in the treatment of a proliferative disorder.

31. Use according to claim 30, wherein the proliferative disorder is cancer or leukaemia.

32. Use according to claim 30 or 31, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

33. Use according to claim 32, wherein the CDK enzyme is CDK2 and/or CDK4.

34. Use of a compound of formula



II

wherein:

one of X^1 and X^2 is NR^{10} and the other of X^1 and X^2 is CR^9;

Z is NH, NHCO, $NHSO_2$, $NHCH_2$, CH_2, CH_2CH_2, or CH=CH;

R^1, R^2, R^3 R^9 and R^{10} are independently H, alkyl, aryl, aralkyl, heterocycle, halogeno, NO_2, CN, OH, alkoxy, aryloxy, (R''')nNH_2, (R''')nNH-R', (R''')nN-(R')(R''), NH-aryl, N-(aryl)$_2$, COOH, COO-R', COO-aryl, $CONH_2$, CONH-R', CON-(R')(R''), CONH-aryl, CON-(aryl)$_2$, SO_3H, SO_2NH_2, CF_3, CO-R', or CO-aryl, wherein alkyl, aryl, aralkyl and heterocycle groups may be further substituted with one or more groups selected from halogeno, NO_2, CN, OH, O-methyl, NH_2, COOH, $CONH_2$ and CF_3;

R^4, R^5, R^6, R^7, and R^8 are independently from each other H, substituted or unsubstituted lower alkyl, halogeno, NO_2, CN, OH, substituted or unsubstituted alkoxy, NH_2, NH-R', N-(R')(R''), COOH, COO-R', $CONH_2$, CONH-R', CON-(R')(R''), SO_3H, SO_2NH_2, or CF_3;

wherein R' R'' and R''' are each independently alkyl groups that may be the same or different and n is 0 or 1;

with the proviso that when R^1 and R^2 are H, X^1 is NH, X^2 is CH, and R^3 is H, the phenyl group is not

3-(1,1,2,2- tetrafluoroethoxy), or

3,4,5-trimethoxy,

when the other groups R^4-R^8 are H;

and pharmaceutically acceptable salts thereof;

in the manufacture of a medicament for use in the treatment of a proliferative disease.

35. A method of treating a subject for a proliferative disorder, comprising administering to a subject a compound of claim 1 or a pharmaceutically acceptable salt thereof, such that said proliferative disorder in said subject is treated.

36. The method of claim 35, wherein the proliferative disorder is cancer or leukaemia.

37. The method of claim 35, wherein said compound is administered in an amount sufficient to inhibit at least one CDK enzyme.

5

38. The method of 37, wherein the CDK enzyme is CDK2 and/or CDK4.